What is claimed is:

1. A method for finding an extrema for an n-dimensional array having a plurality of processing elements, the method comprising:

determining within each of said processing elements a dimensional extrema for a first dimension of said n-dimensional array, wherein said dimensional extrema is related to one or more local extrema of said processing elements in said first dimension;

determining within each of said processing elements a next dimensional extrema for a next dimension of said n-dimensional array, wherein said next dimensional extrema is related to one or more of said first dimensional extrema; and

repeating said determining within each of said processing elements a next dimensional extrema for each of said n-dimensions, wherein each of said next dimensional extrema is related to a dimensional extrema from a previously selected dimension.

2. The method of claim 1 further comprising determining a local extrema for each of said processing element.

3. The method of claim 2 wherein said determining a local extrema for at least one of said processing elements comprises:

separating a set of input values within said processing element into an odd numbered set and an even numbered set;

determining an odd extrema from said odd numbered set;

determining an even extrema from said even numbered set; and

determining said local extrema from said odd extrema and said even extrema.

4. The method of claim 1 wherein said determining within each of said processing elements dimensional extremas for a first dimension of said n-dimensional array comprises:

receiving a set of local extrema from one or more of said processing elements within said first dimension;

separating said set of local extrema into an odd numbered set and an even numbered set;

determining an odd extrema from said odd numbered set;

determining an even extrema from said even numbered set; and

determining said dimensional extrema for a first dimension from said odd extrema and said even extrema.

5. The method of claim 1 wherein said determining within each of said processing elements a next dimensional extrema for a next dimension of said n-dimensional array comprises:

receiving a set of said dimensional extrema for a first dimension from one or more of said processing elements within said next dimension;

separating said set of dimensional extrema for a first dimension into an odd numbered set and an even numbered set;

determining a odd extrema from said odd numbered set;

determining an even extrema from said even numbered set; and

determining said next dimensional extrema for a next dimension from said odd extrema and said even extrema.

6. The method of claim 1 wherein said repeating said determining within each of said processing elements a next dimensional extrema for each of n-said dimensions comprises:

receiving a set of dimensional extrema from one or more of said processing elements within a previously selected dimension;

separating said set of dimensional extrema from said previously selected dimension into an odd numbered set and an even numbered set;

determining a odd extrema from said odd numbered set;

determining an even extrema from said even numbered set; and

determining said next dimensional extrema for said next dimension from said odd extrema and said even extrema.

7. The method of claim 4 wherein determining within each of said processing elements a dimensional extrema for a first dimension of said n-dimensional array comprises:

loading a value from an odd position within said set into a first register;

loading a value from an even position within said set into a second register and transferring said value within said first register to a third register;

loading a value from a next odd position within said set into said first register and transferring said value within said second register to a fourth register; and

loading a value from a next even position within said set into said second register.

8. The method of claim 4 wherein said determining an odd extrema from said odd numbered set comprises comparing the value in said first register to the value in said third register.

9. The method of claim 8 further comprising

selecting the greater value from said first register and said third register if a high odd extrema is desired; and

selecting the lesser value from said first register and said third register if a low odd extrema is desired.

10. The method of claim 4 wherein said determining an even extrema from said even set of values comprises comparing the value in said second register to the value in said fourth register.

11. The method of claim 10 further comprising

selecting the greater value from said second register and said fourth register if the high even extrema is desired; and

selecting the lesser value from said second register and said fourth register if the low even extrema is desired.

12. The method of claim 8 further comprising:

updating said odd extrema in said third register;

loading another value from an odd position within said set into said first register;

comparing the value in said first register to the value in said third register; and

repeating said updating, loading and comparing steps for remaining values within an odd position within said set.

13. The method of claim 10 wherein said

updating said even extrema in said fourth register;

loading another value from an even position within said set into said second register;

comparing the value in said second register to the value in said fourth register; and

repeating said updating, loading and comparing steps for remaining values within an even position within said set.

14. A method comprising:

identifying extrema within a data stream as having one of an odd or an even position;

processing said extrema having an odd position to produce an odd extrema;

processing said extrema having an even position to produce an even extrema; and

determining a dimensional extrema from said odd extrema and said even extrema.

15. The method of claim 14 wherein said processing said extrema having an odd position and processing said extrema having an even position comprises:

loading a extrema having an odd position into a first register;

loading a extrema having an even position into a second register and transferring said extrema within said first register into a third register;

loading a extrema from a next odd position within said data stream into said first register and transferring said extrema within said second register into a fourth register;

comparing said extrema in said first register to said extrema in said third register to produce said odd extrema and loading a extrema from a next even position within said data stream into said second register; and

comparing said extrema in said second register to said extrema in said fourth register to produce said even extrema.

16. The method of claim 15 wherein said processing said extrema having an odd position to produce an odd extrema further comprises:

selecting the greater valued extrema from said first register and said third register if a high odd extrema is desired; and

selecting the lesser valued extrema from said first register and said third register if a low odd extrema is desired.

17. The method of claim 15 wherein said processing said extrema having an even position to produce an even extrema further comprises:

selecting the greater valued extrema from said second register and said fourth register if a high even extrema is desired; and

selecting the lesser valued extrema from said second register and said fourth register if a low even extrema is desired.

18. The method of claim 15 wherein said determining a dimensional extrema from said odd extrema and said even extrema further comprises:

selecting the greater valued extrema from said odd extrema and said even extrema if a dimensional high extrema is desired; and

selecting the lesser valued extrema from said odd extrema and said even extrema if the dimensional low extrema is desired.

19. The method of claim 15 further comprising:

storing said odd extrema in said third register;

loading another extrema from an odd position within said data stream into said first register;

comparing the extrema within said first register to the odd extrema within said third register; and

repeating said storing, loading and comparing steps for remaining extrema within an odd position within said data stream.

20. The method of claim 15 further comprising:

storing said even extrema in said fourth register;

loading another extrema from an even position within said data stream into said second register;

comparing the extrema within said second register to the even extrema within said fourth register; and

repeating said storing, loading and comparing steps for remaining extrema within an even position within said data stream.

21. The method of claim 14 further comprising:

determining a next dimensional extrema for a next dimension for a n-dimensional array, wherein said next dimensional extrema is related to said dimensional extrema; and

repeating said determining a next dimensional extrema for each of said n-dimensions, wherein each of said next dimensional extrema is related to a dimensional extrema from a previously selected dimension.

22. A method for determining a dimensional extrema for an n-dimensional array of processing elements, comprising:

loading odd numbered extrema from a set of said processing elements in a first dimension into a first plurality of registers;

loading even numbered extrema from a set of set processing elements into a second plurality of registers;

comparing certain of said loaded odd numbered extrema to produce an odd extrema;

comparing certain of said loaded even numbered extrema to produce an even extrema; and

producing a dimensional extrema in response to said odd extrema and said even extrema.

23. The method of claim 22 wherein said loading odd numbered extrema from a set of said processing elements in a first dimension into a first plurality of registers comprises:

loading an extrema having an odd position into a first register;

transferring said extrema in said first register into a third register; and

loading an extrema from a next odd position within said data stream into said first register.

24. The method of claim 22 wherein said loading even numbered extrema from a set of set processing elements into a second plurality of registers comprises:

loading an extrema having an even position into a second register;

transferring said extrema in said second register into a fourth register; and

loading an extrema from a next even position within said data stream into said second register.

25. The method of claim 23 wherein said comparing certain of said loaded odd numbered extrema to produce an odd extrema comprises comparing said extrema in said first register to said extrema in said third register to produce said odd extrema.

26. The method of claim 24 wherein said comparing certain of said loaded even numbered extrema to produce an even extrema comprises comparing said extrema in said second register to said extrema in said fourth register to produce said even extrema.

27. The method of claim 25 wherein said comparing certain of said loaded odd numbered extrema to produce an odd extrema further comprises:

storing said odd extrema in said third register;

loading another extrema from an odd position within said data stream into said first register;

comparing said extrema within said first register to said local extrema within said third register; and

repeating said storing, loading and comparing steps for remaining extrema within an odd position within said data stream.

28. The method of claim 26 wherein said comparing certain of said loaded even numbered extrema to produce an even extrema further comprises:

storing said even extrema is said fourth register;

loading another extrema from an even position within said data stream into said second register;

comparing said extrema within said second register to said local extrema within said fourth register; and

repeating said storing, loading and comparing steps for remaining extrema within an even position within said data stream.

29. The method of claim 21 further comprising:

determining a next dimensional extrema for a next dimension of said n-dimensional array, wherein said next dimensional extrema is related to said dimensional extrema; and

repeating said determining a next dimensional extrema for each of said n-dimensions, wherein each of said next dimensional extrema is related to a dimensional extrema from a previously selected dimension.

30. A memory device carrying a set of instructions which, when executed, perform a method comprising:

determining within each of said processing elements a dimensional extrema for a first dimension of said n-dimensional array, wherein said dimensional extrema is related to one or more local extrema of said processing elements in said first dimension;

determining within each of said processing elements a next dimensional extrema for a next dimension of said n-dimensional array, wherein said next dimensional extrema is related to one or more of said first dimensional extrema; and

repeating said determining within each of said processing elements a next dimensional extrema for each of said n-dimensions, wherein each of said next dimensional extrema is related to a dimensional extrema from a previously selected dimension.